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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,266	01/25/2002	Gerald Sangudi	005822. P002	4103

7590 06/04/2004

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EXAMINER	
MIZRAHI, DIANE D	
ART UNIT	**PAPER NUMBER**
2175	5

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/058,266	SANGUDI ET AL.	
	Examiner	Art Unit	
	DIANE D. MIZRAHI	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *44* is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

DIANE D. MIZRAHI
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

III. DETAILED ACTION

Claims 1-44 are presented for examination.

Specification

The abstract of the disclosure is objected to because:

Applicant is reminded of the proper content of an abstract of the disclosure (see below)--

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative. The abstract should not refer to purported merits

or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

The abstract of the disclosure is objected to because the Abstract does not describe Applicant's invention. Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The

disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC . 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

Claims 1-23 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an abstract idea.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". Rubber-Tip Pencil Co. V. Howard, 20 Wall. 498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work Gottschalk v. Benson, 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter Parker v. Flook, 197 USPQ 193, 201 (S Ct 1978).

Data Structures not claimed as embodied in computer-readable media are descriptive material per se and are not

statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. Data Structure should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Examiner is unclear as to what or how the "representing a graph mapped data structure as a fixed set of tables" is enabled.

Examiner believes that the application is deficient under 35 U.S.C. 112, first paragraph because written description is not adequate to identify what the applicant has invented, and does not enable one skilled in the art to make and use the invention as claimed without undue experimentation.

Claims 25-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Examiner is unclear as to what or how the "mapping a tree structured database onto a relational database" is enabled.

Examiner believes that the application is deficient under 35 U.S.C. 112, first paragraph because written description is not adequate to identify what the applicant has invented, and does not enable one skilled in the art to make and use the invention as claimed without undue experimentation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner is unable to attempt to correlate claimed "means" to elements set forth in the written description and drawings. Examiner will give the claimed "means" plus function limitations their broadest reasonable interpretation consistent with all corresponding structures or materials described in the specification and their equivalents including the manner in which the claimed functions which are performed. See Kemco Sales, Inc. v. Control Papers Company, Inc., 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000). Further clarification is required.

Claims 36-37 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner is unclear

as to what "substantially" entails. Substantially is not defined in the specification. Further clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US Publication No.US2002/0169788A1 and Lee hereinafter).

Regarding Claims 32, 38-41, Lee discloses means for inputting a graph based data structure[0263]; means for transforming (i.e. create) [0063] and [0042] the graph based data structure [0032] to a fixed set of tables [0038]; and means for outputting the fixed set of tables... third, data contained in the XML document is loaded into the tables [0043].

Regarding Claim 33, Lee teaches means for transforming the graph based data structure [0063] [0042] [0032].

Regarding Claims 34 and 35, Lee teaches means for transforming data represented in the graph based data structure [0063] [0042] [0032].

Regarding Claim 36, Lee teaches wherein the fixed set of tables is a relational database [0025].

Regarding Claim 37, the limitations of this claim is similar in scope the rejected claims above. In addition, Lee teaches an XML document [0006].

Regarding Claim 42, the limitations of this claim is similar in scope the rejected claims above. In addition, Lee teaches an XML document [0006].

Regarding Claim 43, Lee teaches transferring (i.e. change) [0256] a payment and/or a credit (i.e. default values and types) [0009].

Allowable Subject Matter

Claim 46 is allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance: Applicant's particular method for representing an extendible markup language (XML) data structure as a fixed set of tables in a relational database which includes inputting the XML data structure, grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk, generating a fixed

sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and if necessary, repeating grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk, generating a fixed sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and creating references to grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk, generating a fixed sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and if necessary until the XML data structure is completed and outputting the resulting fixed sized table for use in the relational database. These limitations was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The closest prior art Lee et al. (US Publication No.US2002/0169788A1 and Lee hereinafter) discloses a relational database in which more of the following content particles:

elements, attributes of elements, nesting relationships between elements, grouping relationships between elements, schema ordering indicators, existence indicators, occurrence indicators and element ID referencing indicators and loads the data into the relational database in a manner consistent with the relational in at least one table of the relational database.

Lee does not expressly teach Applicant's invention of representing an extendible markup language (XML) data structure as a fixed set of tables in a relational database which includes inputting the XML data structure, grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk, generating a fixed sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and if necessary, repeating grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk, generating a fixed sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and creating references to grouping at least one XML node and any sub-node into a relationship selected from the group

consisting of linked list, array of object, and chunk, generating a fixed sized table for the group in grouping at least one XML node and any sub-node into a relationship selected from the group consisting of linked list, array of object, and chunk and if necessary until the XML data structure is completed and outputting the resulting fixed sized table for use in the relational database.

Other Prior Art Made of Record

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is (703) 305-3806. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (703) 305-3830. The fax phone numbers for the organization where this application or proceeding is assigned

are (703) 305-9000 for regular communications and (703) 305-9000 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9001.

Diane D. Mizrahi
Primary Patent Examiner
Technology Center 2100

May 25, 2004